

Three new species of the genus *Mythimna* (Lepidoptera, Noctuidae) from China

Shin-ichi YOSHIMATSU¹⁾ and Márton HREBLAY²⁾

¹⁾National Grassland Research Institute, Nishinasuno, Tochigi, 329-2747 Japan

²⁾Érd, Somfa, u. 15, Hungary

Abstract Three new species of the genus *Mythimna*, i. e., *M. glaciata*, *M. naumanni* and *M. ensata*, are described from China.

Key words Noctuidae, *Mythimna*, China, taxonomy.

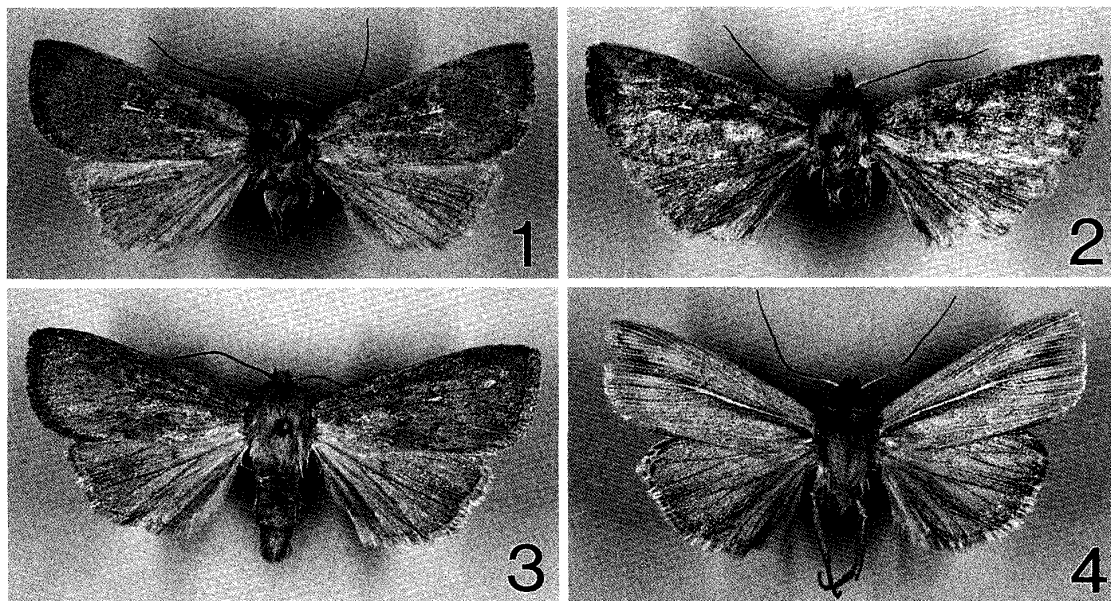
Moths of the *Leucania*-complex were integrated into one genus *Mythimna* by Yoshimatsu (1994). However, before that work, many generic names had been assigned to this group. For example, Hampson (1905) treated the members under the genera *Eriopyga*, *Cirphis*, *Leucania* and so on.

Draudt (1950) roughly followed the generic treatment of Hampson (1905) in listing and describing many noctuid species from China. He recorded 4 species of *Eriopyga* (one new species is involved), 35 species of *Cirphis* (including 14 new species and 3 new forms) and 4 species of *Leucania* (involving 3 new species) from China. Although he recorded many species of *Polia*, two of them (*P. consanguis* (Guenée) and *P. yuennana* Draudt) are obviously the members of the genus *Mythimna* sensu Yoshimatsu (1994). *Hyssia tessellum* Draudt, 1950 was transferred to the genus *Mythimna* by Boursin (1967). And *Leucania monimalis* Draudt, 1950 was treated as a member of the genus *Perigrapha* by Hreblay (1996). Draudt (1950) studied many specimens collected by Dr H. Höne, but we found furthermore three new species of the genus *Mythimna* in the same collection presently deposited in the Museum Alexander Koenig (MAK), Bonn. All the type specimens are deposited to MAK, Bonn.

***Mythimna (Hyphilare) glaciata* Yoshimatsu, sp. nov.** (Figs 1, 2, 5)

Length of forewing. 13.8–16.0 mm.

Male. Frons and vertex pale brownish. Thorax pale brownish; tegula brownish. Abdomen ochreous, tinged with fuscous and with ventral black hair tufts basally. Forewing brownish, sometimes irrorated with fuscous; a fuscous basal spot; subbasal line represented by a black spot on costa; antemedial line represented by black spots on costa and veins; a white streak on distal portion of median nervure, slightly hooked on discocellulars; orbicular and reniform paler; postmedial line represented by black spots on veins; terminal line represented by black spots on interspaces; cilia ochreous white with a fuscous transverse band in the middle. Underside of forewing ochreous, tinged with fuscous; a fuscous spot at the end of cell; a fuscous postmedial line; terminal line represented by black spots on interspaces; cilia fuscous brown. Hindwing ochreous with fuscous outer half; a fuscous discoidal spot; cilia ochreous white with fuscous tips. Underside of hindwing ochreous white, entirely irrorated with fuscous; a fuscous discoidal spot; a fuscous postmedial line; terminal line represented by black spots on interspaces; cilia ochreous white with a faint



Figs 1-4. Adults of *Mythimna* spp. 1. *M. (Hyphilare) glaciata* Yoshimatsu, sp. nov., holotype. 2. *M. (H.) glaciata* Yoshimatsu, sp. nov., paratype. 3. *M. (Mythimna) naumanni* Yoshimatsu & Hreblay, sp. nov., holotype. 4. *M. (M.) ensata* Yoshimatsu, sp. nov., holotype.

fuscous transverse band in the middle.

Female. Unknown.

Male genitalia. Tegumen moderately broad; vinculum moderately broad; saccus moderately large. Uncus short and falcate. Valva except cucullus moderately long; costa slightly curved; editum moderately large with many hairs; ampulla moderately long, falcate and its almost all portion beyond the posterior margin of valvula; sacculus moderately broad; harpe slightly short, dorsal process of harpe slightly short; valvula moderately broad with very narrow membranous area; cucullus moderately large and battle-dore shaped with a small process ventrally, many diffused coronal spines, a few spines marginally, and its basal arm moderately long. Juxta as in Fig. 5C. Phallus unmodified; vesica moderately long, about 1.3 times as long as aedeagus when everted, its distal portion bulged, with a short tubular diverticulum and a small diverticulum at the middle, bearing dense spinules on entire surface beginning at the tip of the diverticula and extending to distal end, long slender spines and a large spine at distal end.

Holotype. ♂, Li-kiang ca 2,000 m, Prov. Nord-Yuennan, 18. v. 1935, H. Höne. Paratype. 1 ♂, Li-kiang, ca 2,000 m, Provinz Nord-Yuennan, 22. v. 1935, H. Höne.

Distribution. China.

Remarks. This species is superficially similar to *M. (H.) flavostigma* (Bremer) which is distributed from China, Korea, Primorye Territory of Russia and Japan. In the male genitalia, this species has a small process on cucullus ventrally, however, no process is recognized on cucullus in *flavostigma*. And the vesica of this species is shorter than that of *flavostigma*. The tendency of variation in forewing maculation as seen in *M. (H.) flavostigma* may be shared with this species.

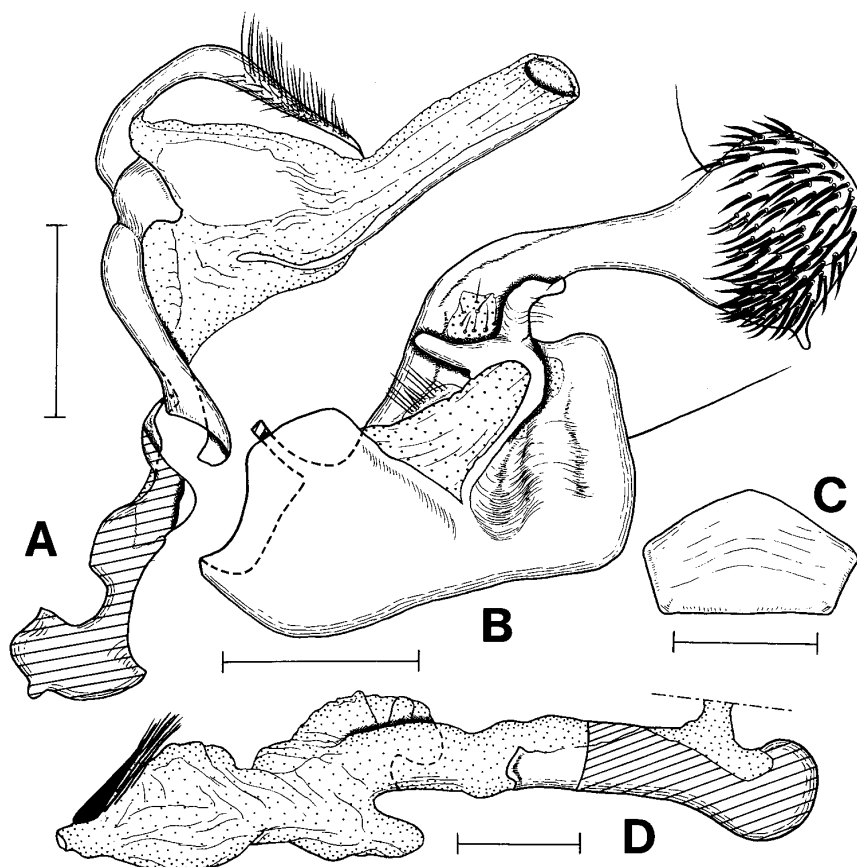


Fig. 5. Male genitalia of *Mythimna (Hyphilare) glaciata* Yoshimatsu, sp. nov. A: Ring in lateral view. B: Right valva in inner view. C: Juxta. D: Phallus in lateral view. Scales A, B, D. 1 mm; C. 0.5 mm.

***Mythimna (Mythimna) naumanni* Yoshimatsu & Hreblay, sp. nov. (Figs 3, 6, 7)**

Length of forewing. 16.2–17.0 mm.

Male. Frons and vertex pale brownish. Thorax pale brownish; tegula brownish. Abdomen ochreous, tinged with fuscous. Forewing entirely bright brownish; basal spot and subbasal line indistinct; antemedial line represented by a faint fuscous line; a white spot on distal end of median nervure; orbicular indistinct; reniform paler with a fuscous spot in it; postmedial line represented by a fuscous zigzag line; terminal line represented by black spots on interspaces; cilia brownish. Underside of forewing ochreous white, slightly tinged with reddish; a fuscous spot at the end of cell; a fuscous postmedial line; terminal line represented by black spots on interspaces; cilia reddish brown. Hindwing ochreous with fuscous outer half; veins fuscous; a fuscous discoidal spot; cilia ochreous with a fuscous transverse band in the middle. Underside of hindwing ochreous white, slightly tinged with reddish; a fuscous discoidal spot; terminal line represented by black spots on interspaces; cilia ochreous white with a fuscous transverse band in the middle.

Female. Similar to male.

Male genitalia. Tegumen moderately broad; vinculum moderately broad; saccus moderately large. Uncus short and falcate. Valva except cucullus slightly long; costa slightly curved; editum moderately large, produced ventrally and with many hairs; ampulla long,

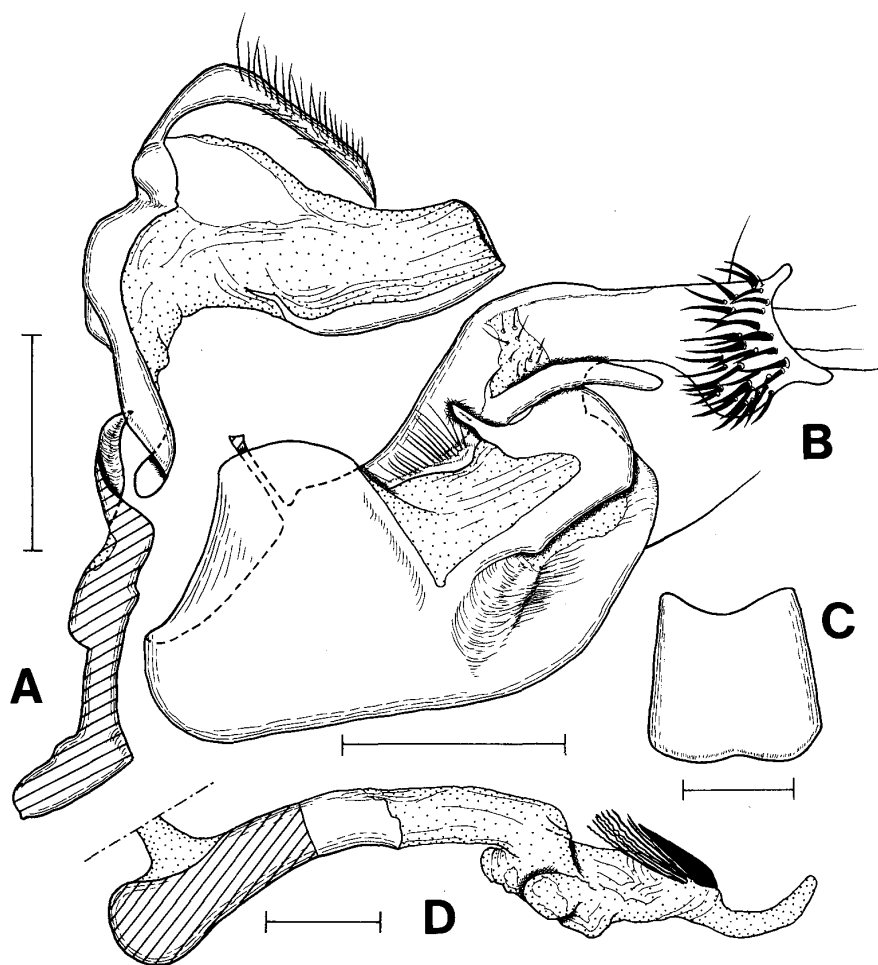


Fig. 6. Male genitalia of *Mythimna (Mythimna) naumanni* Yoshimatsu & Hreblay, sp. nov. A: Ring in lateral view. B: Right valva in inner view. C: Juxta. D: Phallus in lateral view. Scaels A, B, D. 1 mm; C. 0.5 mm.

slightly curved ventrally and its distal half beyond the posterior margin of valvula; sacculus broad, distal portion of its dorsal margin raised dorsally; harpe moderately long, rounded bulged ventroposteriorly, posterior margin of harpe beyond the posterior margin of valvula, dorsal process of harpe moderately long; valvula narrow with narrow membranous area; cucullus moderately large with two small processes posteriorly, many diffused coronal spines, a few spines marginally, and its basal arm moderately long and broad. Juxta as in Fig. 6C. Phallus unmodified; vesica moderately long, almost as long as aedeagus when everted, bulged on distal half, bearing dense spinules on entire surface of distal half, long spines near distal end and a large spine at distal end.

Female genitalia. Seventh abdominal tergum and sternum unmodified. Eighth abdominal tergum unmodified; apophysis anterioris moderately long. Ductus bursae sclerotized and curved dorsally at the middle. Corpus bursae rounded; cervix bursae short and weakly sclerotized. Papilla analis unmodified; apophysis posterioris long.

Holotype. ♂, Li-kiang, Provinz Nord-Yuennan, 18. vi. 1934, H. Höne. Paratypes. 1 ♂, Li-kiang, Provinz Nord-Yuennan, 18. vi. 1934, H. Höne; 1 ♂, Li-kiang, ca 3,000 m, Prov. Nord-Yuennan, 6. iv. 1935, H. Höne, Genitalia slide Hreblay No. 5254; 1 ♀, Li-kiang, ca 2,000 m, Prov. Nord-Yuennan, 24. v. 1935, H. Höne, Genitalia slide Hreblay No. 5082.

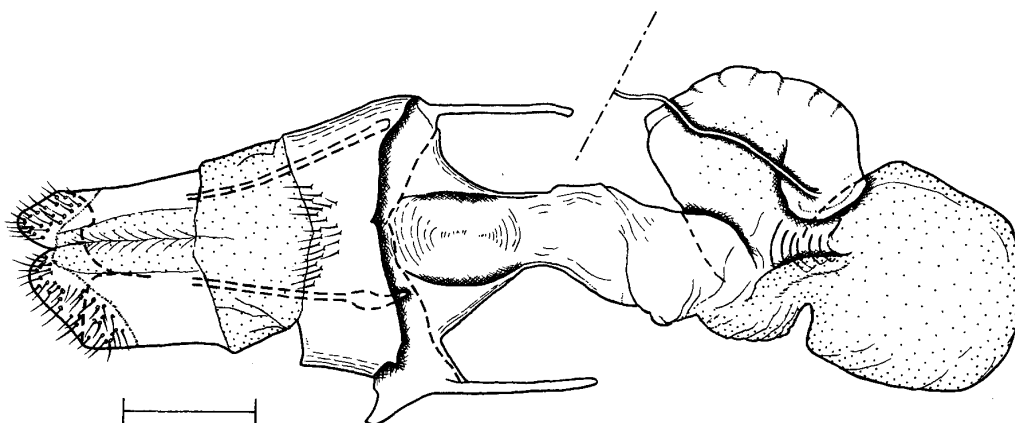


Fig. 7. Female genitalia of *Mythimna (Mythimna) naumanni* Yoshimatsu & Hreblay, sp. nov., dorsal view. Scale 1 mm.

Distribution. China.

Remarks. Though not similar superficially, the male genitalia of this species resemble those of *M. (M.) salebrosa* (Butler) and *M. (M.) chosenicola* (Bryk) known from China, Korea and Japan. In these two species the cucullus is slightly larger than in *M. (M.) naumanni* sp. n. and the coronal spines are more in number than in this new species.

***Mythimna (Mythimna) ensata* Yoshimatsu, sp. nov. (Figs 4, 8)**

Length of forewing. 15.6–16.3 mm.

Male. Frons and vertex dark brown. Thorax ochreous white; tegula ochreous white, tinged with brown. Abdomen ochreous white, tinged with fuscous. Forewing ochreous white, irrorated with fuscous; a fuscous basal spot; subbasal line and antemedial line indistinct; median nervure represented by a white streak, a fuscous band beneath the median nervure; a small fuscous spot at the end of cell; orbicular and reniform indistinct; postmedial line represented by black spots on veins; a fuscous triangular shade from termen; terminal line represented by black spots on interspaces; cilia ochreous white. Underside of forewing fuscous brown; postmedial line represented by a black spot on costa; terminal line represented by black spots on interspaces; cilia ochreous white with a fuscous transverse band in the middle. Hindwing ochreous white, strongly tinged with fuscous; veins fuscous; cilia ochreous white with a fuscous transverse band in the middle. Underside of hindwing ochreous white irrorated with fuscous; terminal line represented by black spots on interspaces; cilia ochreous white with a fuscous transverse band in the middle.

Female. Unknown.

Male genitalia. Tegumen moderately broad; vinculum moderately broad; saccus moderately large. Uncus short and falcate. Valva except cucullus long; costa slightly curved; editum large with many hairs; ampulla moderately long and its distal portion beyond the posterior margin of valvula; saccus broad; harpe moderately long, its ventroposterior portion slipped into the valvula, dorsal process of harpe slightly short and hooked; valvula narrow with narrow membranous area; cucullus moderately large with many diffused coronal spines, a few spines marginally, and its basal arm moderately long. Juxta as in Fig. 8C. Phallus unmodified; vesica moderately long, about 1.6 times as long as aedeagus when everted and its basal portion slightly bulged, bearing a bunch of long spines at basal 1/3,

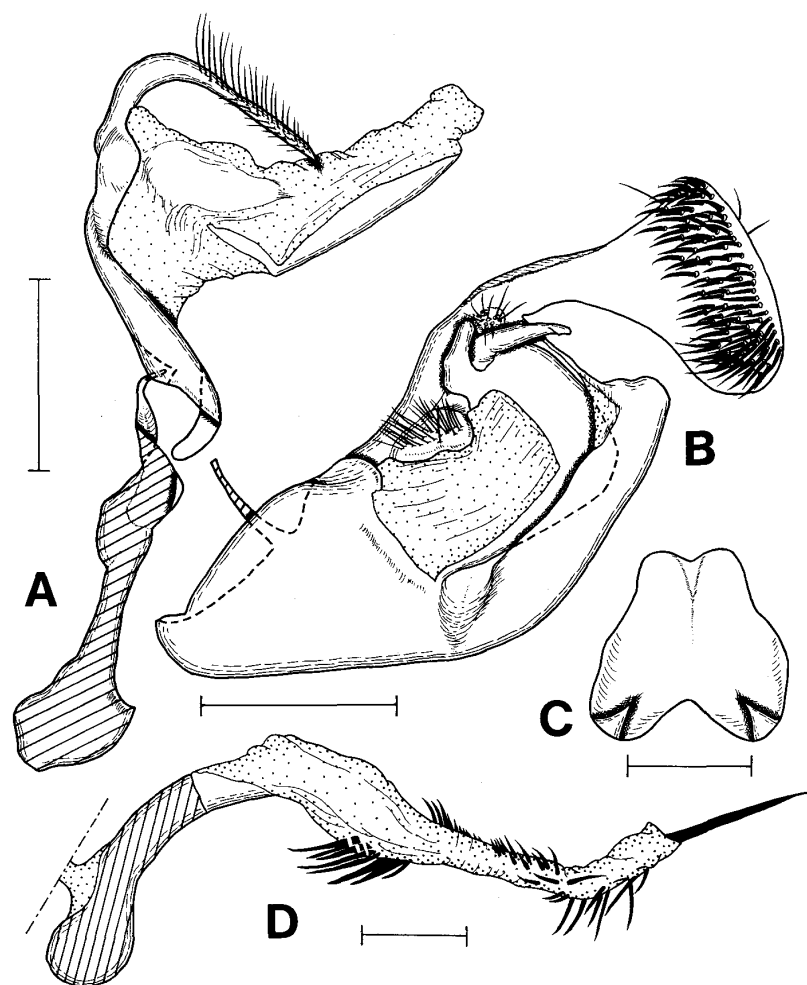


Fig. 8. Male genitalia of *Mythimna (Mythimna) ensata* Yoshimatsu, sp. nov. A: Ring in lateral view. B: Right valva in inner view. C: Juxta. D: Phallus in lateral view. Scales A, B, D. 1 mm; C. 0.5 mm.

irregular rows of spines from basal 1/3 to distal end and a long slender spine at distal end.

Holotype. ♂, Li-kinag ca 2,000 m, Prov. Nord-Yuennan, 4. ix. 1934, H. Höne. Paratype. 1 ♂, Li-kinag ca 3,000 m, Prov. Nord-Yuennan, 25. viii. 1935, H. Höne.

Distribution. China.

Remarks. This new species is superficially near to *M. (M.) lineatipes* (Moore), *M. (M.) nainica* (Moore), *M. (M.) percisa* (Moore) and *M. (M.) lucida* Yoshimatsu & Hreblay all known from Asia.

Acknowledgements

We thank Prof. C. M. Naumann, Dr D. Stünning and Dr W. Speidel of MAK, Bonn for the loan of specimens and their kind hospitality during our visit.

References

Boursin, C., 1967. Die neuen *Hermonassa* Wlk.-Arten aus Dr. H. Höne's China-Ausbeuten. *Z. wien.*

ent. Ges. **52**: 21-38, 9 pls.

Draudt, M., 1950. Beiträge zur Kenntnis der Agrotiden-Fauna Chinas. Aus den Ausbeuten Dr. H. Höne's (Beitrag zur Fauna Sinica). *Mitt. münch. ent. Ges.* **40**: 1-174, pls 1-18.

Hreblay, M., 1996. Neue paläarktische Taxa aus der Gattung *Perigrapha* Lederer, 1857 (Lepidoptera, Noctuidae). *Esperiana* **4**: 65-94.

Yoshimatsu, S., 1994. A revision of the genus *Mythimna* (Lepidoptera: Noctuidae) from Japan and Taiwan. *Natn. Inst. Agro-environ. Sci. Tsukuba* **11**: 81-323.

摘 要

中国産 *Mythimna* 属 (鱗翅目, ヤガ科) 3 新種の記載 (吉松慎一・Márton Hreblay)

Draudt (1950) は Höne が中国より採集した標本を用い, 多くのヤガの新種を記載した. 彼の属の扱いは Hampson (1905) とほぼ同じで, キョトウは主に *Eriopyga*, *Cirphis*, *Leucania* の 3 属のもとに扱われ, 合計で 43 種 (18 新種 3 新型を含む) が記録された. これ以外に, *Polia* 属の 2 種と *Hyssia* 属の 1 種はキョトウに含まれ, また *Leucania monimalis* はキョトウではなく *Perigrapha* 属の一員であることが後に判明した. 一方, 日本と台湾のキョトウは Yoshimatsu (1994) により 1 属に統合することが提唱された.

ここではボンの MAK 博物館所蔵の Höne コレクションにさらに 3 新種を発見したので記載した. どの種も現時点では中国雲南省の Li-kiang からのみ知られる.

Mythimna (Hyphilare) glaciata Yoshimatsu, sp. nov. (Figs 1, 2, 5)

日本に分布するマダラキョトウに類似し, 前翅の斑紋はマダラキョトウ同様変異が大きいようである. 今回は 2 個体を使ったのみなので斑紋の変異幅を知るにはさらなる標本の調査が必要である.

Mythimna (Mythimna) naumanni Yoshimatsu & Hreblay, sp. nov. (Figs 3, 6, 7)

本種の雄交尾器は日本産のカバフクロテンキョトウとクロテンキョトウに似るが, 前翅の色調で容易に区別できる. 雄交尾器では本種の cucullus はカバフクロテンキョトウ, クロテンキョトウよりもやや小さく, coronal spine の数も少ない.

Mythimna (Mythimna) ensata Yoshimatsu, sp. nov. (Figs 4, 8)

アジア産の *M. (M.) lineatipes* (Moore), *M. (M.) nainica* (Moore), *M. (M.) percisa* (Moore), *M. (M.) lucida* Yoshimatsu & Hreblay に外見は似ているが, 雄交尾器形態で簡単に区別できる.

(Accepted October 3, 1997)